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|--|---|
| 8-14 DAY OUTLOOK TEMPERATURE PROBABILITY MADE 17 DEC 2012 VALID DEC 25 - 31, 2012 | DASHED BLACK LINES ARE CLIMATOLOGY (DES F) SHADED AREAS ARE FCST VALUES ABOVE TA) OR BELDU (BE RORMAL UNSHADED AREAS ARE NEAR-NORMAL |
| 90% 80% 70% 60% 50% 40% 33 | 1% 33% 40% 50% 60% 70% 80% 90% |
| Probability of Below | Normal Probability of Above |

| Location | 2012 Average | Rank | Prior or Nearest Record | Year of Prior or Nearest Record | Comments/Data Availability |
|-----------------|-----------------|------|-------------------------------|--|--|
| Brownsville | 77.8 | 1 | 76.7 | 2011 | 134 years of data were found (since 1878) |
| Harlingen/Coop | 77.1 | 1 | 76.9 | 1950 | 97 years of data were found (since 1911) |
| McAllen/Coop | 79.0 | 1 | 77.4 | 2006 | 69 years of data were found (since 1941) |
| La Joya/Mission | 78.5 | 1 | 78.3 | 1998 | 94 years of data were found (since 1911) |
| Hebbronville | 76.0 | 1 | 75.5 | 2011 | 49 years of data were found (since 1905). |
| Port Mansfield | 75.7 | 1 | 75.2 | 2006 | 55 years of data were found (since 1958) |
| McAllen/Miller | 78.9 | 2 | 79.0 | 2009 | 52 years of data were found (since 1961) |
| Armstrong | 76.3 | 2 | 76.5 | 1958 | 23 years of data were found (since 1978) |
| Port Isabel | 76.6 | 2 | 76.7 | 1998 | 77 years of data were |

Left: Eight to Fourteen Day Forecast, issued December 17th, through end of the year. A 40 to 45 percent probability of above average temperatures is expected for South Texas, meaning much lower probabilities – say 30 to 35 percent for "average", and 25 percent for "below average", are forecast. **Right:** 2012 Selected RGV stations' average temperature ranking and comparison to other years for the period January 1 through December 16.

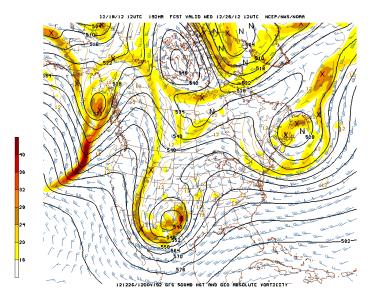
The Beat (Heat?) Goes On...

December Certain to End Up Well Above Average

2012 Likely to Become Warmest on Record for Lower Valley

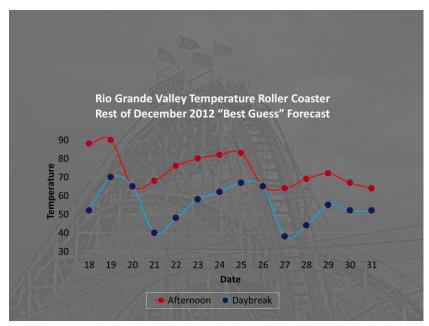
The 2012 Holiday Period Forecast

The weather pattern will become more active across the Lower 48 as we move into Christmas Week and head toward New Year's Eve. Fast moving, high amplitude waves spin down from the Gulf of Alaska into the lee of the central or southern Rockies, then dive into the central and southern Plains before lifting rapidly traverse the country (right, click for a loop) through December 27th, bringing changeable weather to the nation, including snow from the Rockies to the northern Great Plains and Upper Midwest and dangerous thunderstorms to parts of the southern U.S. Conditions will settle down a bit after the 27th, as broad surface high pressure should dominate much of the nation, with lighter precipitation in the Rockies early, moving/re-



forming in the eastern Gulf and southeast U.S. as the New Year approaches.

For the Rio Grande Valley, each system will bring a shot of cooler days and chilly nights along with a day of blustery winds. Each cool shot will be short lived, with temperatures rebounding quickly above average for several days. Christmas week will begin as much of December has been – warm, relatively humid, and somewhat breezy into early Christmas morning. Drier and cooler air will filter



into the Valley late Christmas Day, with another day or two of cool-ish afternoons and colder mornings through the 27th before recovery to near or a few degrees above average for the pre-New Year's weekend. Data trends for New Year's Eve are suggesting a chilly, raw end to the calendar year. Average temperatures for the holiday week are typically around 70 each afternoon, and around 50 each daybreak; the forecast suggests the weekly average will be several degrees higher, though not as spring like as the near record like heat featured through the first 19 days of the month. Note: Forecasts beyond 7 days may change drastically.

Dry is the word. The anticipated "roller coaster" of temperatures to close out December will be accompanied by little, if any, rainfall. The atmospheric mechanisms necessary for rain production will be displaced into the north half of Texas. In fact, each cold front will be followed by very low humidity and gusty, drying winds with some sunshine. Drought conditions (below, right) may worsen further across the Lower Valley and spread farther west before 2012 is through.

Fire(works) Safety is Key. The expected "flash" drying following each front will increase the risk of rapid growth and spread of wildfire, most common during period of strongest winds and lowest humidity. Extreme to Exceptional Drought conditions across the most populated areas of the Valley could become critical to additional fire starts and spread from larger, unregulated fireworks and near ground incendiary devices. As of December 18th, burn bans were not in effect for Cameron and Hidalgo County (bans were in effect elsewhere across most of Deep South Texas). Temporary restrictions may be enacted prior the Christmas and New Year's holiday period. Be sure to look for local updates on Valley television and newspaper coverage, as well as at the Cameron and Hidalgo County websites.

RGV Drought Monitor December 4th-18th, 2012



A Hint at January

The increased cooling with each front to end December may be sign of what's to come in January. As discussed in our 2012/2013 Winter Outlook, the combination of atmospheric "puzzle pieces" continue to suggest a warmer and drier than average winter overall, with occasional cold snaps, some which may bring modified arctic air into the Valley to produce one or two freezes and perhaps a hard freeze. These puzzle pieces include the Pacific Decadal Oscillation (negative phase), El Niño/Southern Oscillation (neutral "leaning" negative), and the Arctic/North Atlantic Oscillation would favor a slight amplification of dry (vs. average or wet) conditions. The Arctic/North Atlantic

Oscillation remains the wild card. Trends favor more negative phases than positive ones in January, but the Arctic/North Atlantic Oscillation has limited predictability and can change phases "on a dime".

We'll update this article with the latest forecast for January, produced by NOAA's Climate Prediction Center, on December 20th.